WHAT IS CLAIMED IS:

1. A P element vector that integrates into the genome of a non-Drosophilidae animal, said vector comprising: a pair of P element transposase recognized insertion sequences flanking at least one transcriptionally active gene that is in close approximation to one of the P element transposase recognized sequences.

2. The vector according to Claim 1, wherein said at least one transcriptionally active gene comprises a coding sequence that is expressed under intracellular conditions.

3. The vector according to Claim 1, wherein said vector further comprises at least one endonuclease cleavage site.

4. The vector according to Claim 1, wherein said endonuclease cleavage site is present in a polylinker.

5. The vector according to Claim 1, wherein said vector further comprises transposase domain encoding a product having P element transposase activity, wherein said transposase domain is not flanked by said pair of transposase recognized insertion sequences.

6. The vector according to Claim 1, wherein said vector further comprises an exogenous sequence positioned at a site between said pair of transposase recognized insertion sequences.

7. The vector according to Claim 1, wherein said transposase recognized insertion sequences are 31 base pair inverted repeats.

8. A P element vector for introducing an exogenous nucleic acid into the genome of a non-Drosophilidae animal, said vector comprising: a pair of P element derived 31 base pair inverted repeats flanking at least one transcriptionally active gene, wherein said transcriptionally active gene is in proximity of at least one of the P element 31 base pair inverted repeats and comprises a coding sequence that is expressed under intracellular conditions.

9. The vector according to Claim 8, wherein said vector further comprises a nucleic acid sequence encoding a product having P element transposase activity positioned external to the vector domain flanked by said pair of P element derived 31 base pair inverted repeats.

10. The vector according to Claim 8, wherein said vector further comprises an exogenous nucleic acid positioned between said P element derived 31 base pair inverted repeats.

11. A method of inserting an exogenous nucleic acid into the genome of a non-Drosophilidae animal, said method comprising:

introducing into said animal a P-element derived vector comprising said exogenous nucleic acid under conditions sufficient for transposition to occur;

whereby said exogenous nucleic acid is inserted into said genome.

12. A method of inserting an exogenous nucleic acid into the genome of a non-Drosophilidae animal, said method comprising:

introducing into said animal a vector according to Claim 1 under conditions sufficient for transposition to occur;

whereby said exogenous nucleic acid is inserted into said genome.

13. The method according to Claim 12, wherein said vector comprises a transposase domain.

14. The method according to Claim 12, wherein said method further comprises introducing a second vector comprising a transposase domain into said animal.

15. The method according to Claim 12, wherein said exogenous nucleic acid ranges in length from about 50 to 150,000 bp.

16. The method according to Claim 12, wherein said target animal is a vertebrate.

17. The method according to Claim 12, wherein said vertebrate animal is a mammalian animal.

18. The method according to Claim 12, wherein said mammalian animal is a rodent.

19. A kit for use in inserting an exogenous nucleic acid into a target cell, said kit comprising:

a P element derived vector comprising a pair of P element transposase recognized insertion sequences flanking at least one transcriptionally active gene in proximity to at least one of the P element transposase recognized isertion sequences.

20. The kit according to Claim 19, wherein said transcriptionally active gene comprises a coding sequence that is expressed under intracellular conditions.

21. The kit according to Claim 19, wherein said vector further comprises at least one endonuclease cleavage site positioned between said transposase recognized insertion sequences.

22. The kit according to Claim 21, wherein said endonuclease cleavage site is present in a polylinker.

23. The kit according to Claim 19, wherein said kit further comprises a nucleic acid sequence encoding a product having P element transposase activity.

24. The kit according to Claim 23, wherein said vector comprises said nucleic acid sequence encoding a product having transposase activity.

25. The kit according to Claim 23, wherein said nucleic acid sequence encoding a product having transposase activity is present on a second vector.

26. The kit according to Claim 19, wherein said transposase recognized insertion sequences are 31 base pair inverted repeats.

27. A non-Drosophilidae animal or cells derived from said animal that has P element transposase recognized insertion sequences integrated into the genome.

28. The animal or cells according to Claim 27, wherein said animal is a vertebrate or said cells are vertebrate cells.

29. The animal or cells according to Claim 28, wherein said animal is a mammal or said cells are mammalian cells.

30. The animal or cells according to Claim 29, wherein said animal is a rodent or said cells are rodent cells.

31. A non-Drosophilidae animal or cells derived from said animal that have P element transposase recognized 31bp insertion sequences integrated into the genome.

32. The animal or cells according to Claim 31, wherein said animal is a vertebrate or said cells are vertebrate cells.

33. The animal or cells according to Claim 32, wherein said animal is a mammal or said cells are mammalian cells.

34. The animal or cells according to Claim 33, wherein said animal is a rodent or said cells are rodent cells.